DoD Maintenance Policy,
Programs, and Resources

FACT BOOK

2002

ACQUISITION, TECHNOLOGY
AND LOGISTICS

OFFICE OF THE DEPUTY UNDER SECRETARY OF DEFENSE
(LOGISTICS AND MATERIEL READINESS)
3500 DEFENSE PENTAGON
WASHINGTON DC 20301-3500

Defense maintenance is the business of nearly 700,000 military (Active and Reserve Component) and Department of Defense (DoD) civilian personnel. In addition, several thousand private sector firms worldwide are engaged in maintaining DoD materiel. Supported weapon systems include approximately 300 ships, 15,000 aircraft and helicopters, 1,000 strategic missiles, and 350,000 ground combat and tactical vehicles. Hundreds of thousands of additional mission support assets are also maintained. DoD maintenance consumes an estimated 40 billion dollars annually in resources.

Depot maintenance—the repair, rebuilding, and major overhaul of weapon systems, end items, assemblies, and subassemblies—involves about one in 10 people in the DoD maintenance work force and accounts for about one-third of estimated total maintenance costs. In terms of dollar value, private-sector firms are projected to accomplish more than 47 percent of the depot maintenance requirements in fiscal year 2003.

Field-level maintenance, which includes intermediate and organizational-level maintenance, is performed on weapon systems and equipment in the field or in nearby shops and is accomplished at most of the DoD's military installations. About 90 percent of the DoD maintenance work force, including active duty military, federal civilians, and Reserve Component forces, is involved in field-level maintenance support. The private sector also provides some of DoD's field-level weapon and equipment maintenance support through direct contracting arrangements.

The *DoD Maintenance Policy, Programs, and Resources Fact Book* contains general information about the Department's maintenance resources and operations. The *Fact Book* presents historical information as well as projections, where needed, to highlight trends. The *Fact Book*, which presents data available through August 2002, provides general information only and does not represent official correspondence.

Robert T. Mason
Assistant Deputy Under Secretary of Defense
(Maintenance Policy, Programs, and Resources)

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Abbreviation List

AFB	Air Force Base
AD	Army Depot
ADUSD	Assistant Deputy Under Secretary of Defense
ALC	Air Logistics Center
AMARC	Aerospace Maintenance and Regeneration Center
CBM+	Condition-Based Maintenance Plus
C-E	Communication—Electronics
CRS	Common Reparable Support
CV	Carrier Vessel
DDMC	Defense Depot Maintenance Council
CVN	Nuclear-Powered Carrier (carrier vessel [nuclear])
DLA	Defense Logistics Agency
DLH	Direct Labor Hour
DMI	Depot Maintenance Interservicing
DUSD(L&MR)	Deputy Under Secretary of Defense (Logistics and Material Readiness)
FAR	Federal Acquisition Regulation
FY	Fiscal Year
ICBM	InterContinental Ballistic Missile
JS	Joint Service
JV	Joint Vision

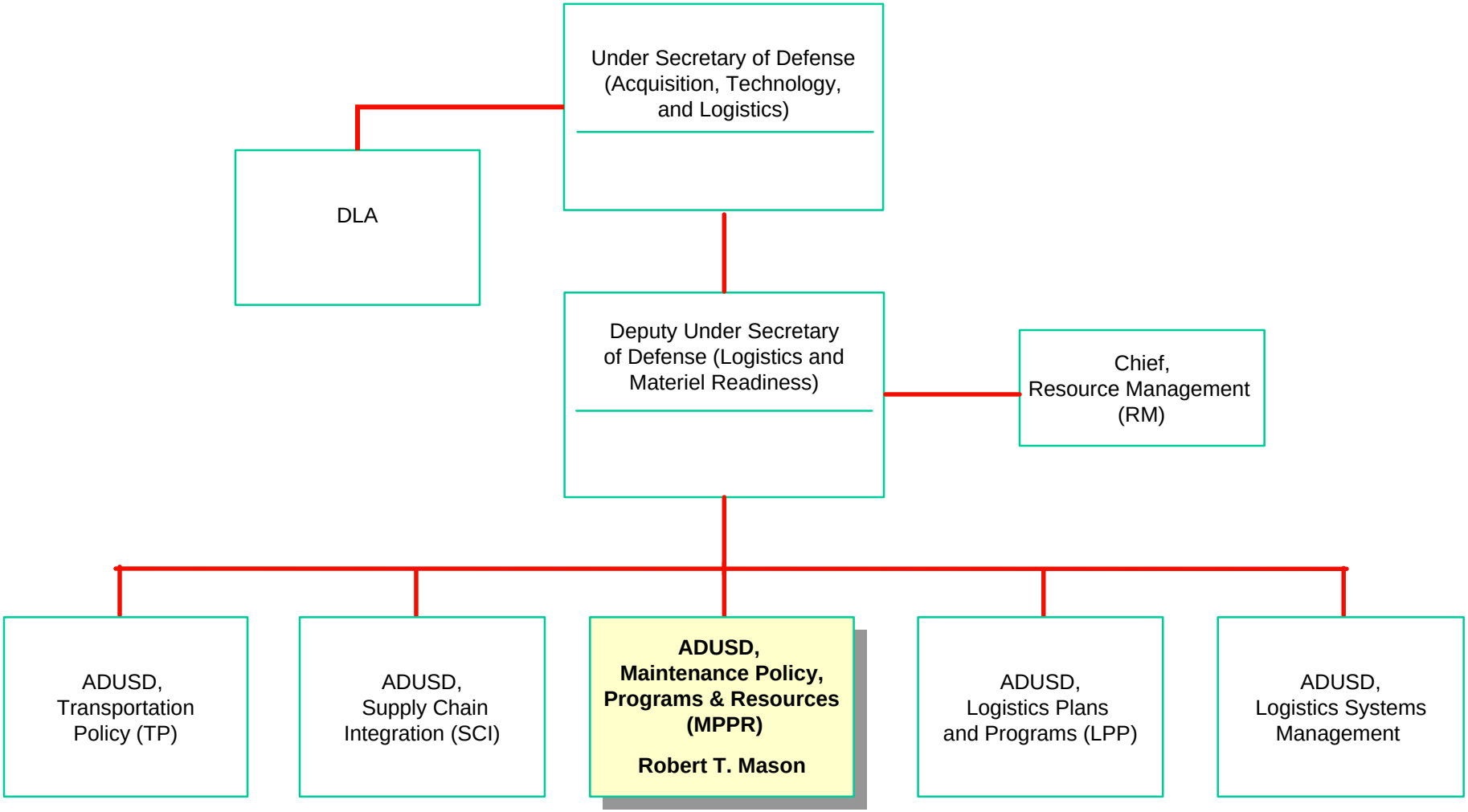
Reference

Abbreviation List

LPP	Logistics plans and programs
MC3	Marine Corps Multiple Commodity Maintenance Center
MPPR	Maintenance Policy, Programs, and Resources
NADEP	Naval Air Depot
NAS	Naval Air Station
NAVAIR	Naval Air Systems Command
NAVSEA	Naval Sea Systems Command
NSWC	Naval Surface Warfare Center
NSY	Naval Shipyard
NUWC	Naval Undersea Warfare Center
OSD	Office of the Secretary of Defense
PL	Public Law
PP&E	Property, Plant, and Equipment
PPP	Public-Private Partnership
RM	Resource Management
SPAWAR	Space and Naval Warfare Systems Command
TP	Transportation Policy
USAF	United States Air Force
USMC	United States Marine Corps
USN	United States Navy
VMAQ	Marine Tactical Early Warning Squadron

Reference

OSD Logistics Organization



FLE

The Future Logistics Enterprise: Ensuring Consistent, Reliable Warfighter Support

The Future Logistics Enterprise (FLE) is the DoD's strategic vision to accelerate logistics improvement to enhance support to the warfighter. The primary objective of the FLE is to ensure consistent, reliable support that meets warfighter requirements through enterprise integration and end-to-end customer service. It builds upon the National Defense Strategy, the results of the Quadrennial Defense Review, ongoing Military Service and Defense Agency initiatives, and previous DoD logistics architecture effort. The FLE is focused on near-term collaborative initiatives that directly improve warfighter support, address known structural problems, and accelerate the achievement of DoD's long-range vision of Focused Logistics (JV2020) across the Services and Agencies. Specific collaborative initiatives include:

- Enterprise Integration/Enterprise Resource Planning
- Total Life-Cycle Systems Management
- End-to-End Distribution
- Executive Agents
- Condition-Based Maintenance+ (CBM+)
- Depot Maintenance Partnerships

} *Initiatives to improve DoD maintenance capabilities and operations*

Of the six collaborative initiatives that comprise the FLE, two specifically focus on DoD maintenance: Condition-Based Maintenance Plus and Depot Maintenance Partnerships. While other FLE initiatives will involve maintenance, either directly or indirectly, these two specific initiatives directly target maintenance to achieve the FLE objective.

Condition-Based Maintenance+

FLE

Desired End State: Increased operational availability and readiness throughout the life of each weapon system.

The goal is to reduce the total maintenance requirement—increasing the amount of predicted maintenance while decreasing both preventive maintenance and reactive (unplanned) maintenance.

This initiative includes

- implementation of new or improved maintenance practices, concepts, and technologies for new and legacy systems, when applicable and cost effective;
- establishment of need-driven, reliable maintenance plans;
- integration of maintenance and logistics reporting systems and processes;
- evolution of embedded diagnostics and prognostics applications;
- development of statistical and engineering analysis tools to enable CBM+ and improve maintenance management decisions; and
- application of interactive electronic technical manuals, serialized item management, portable maintenance aids, and other enhancing logistics features and functions.

FLE

Depot Maintenance Public-Private Partnerships

Desired End State: Increased depot-industry partnerships resulting in

- improved business processes;
- increased facility utilization;
- private-sector investment in facilities and equipment;
- reduced cost of ownership;
- potential workforce integration; and
- more commercial work performed at depots.

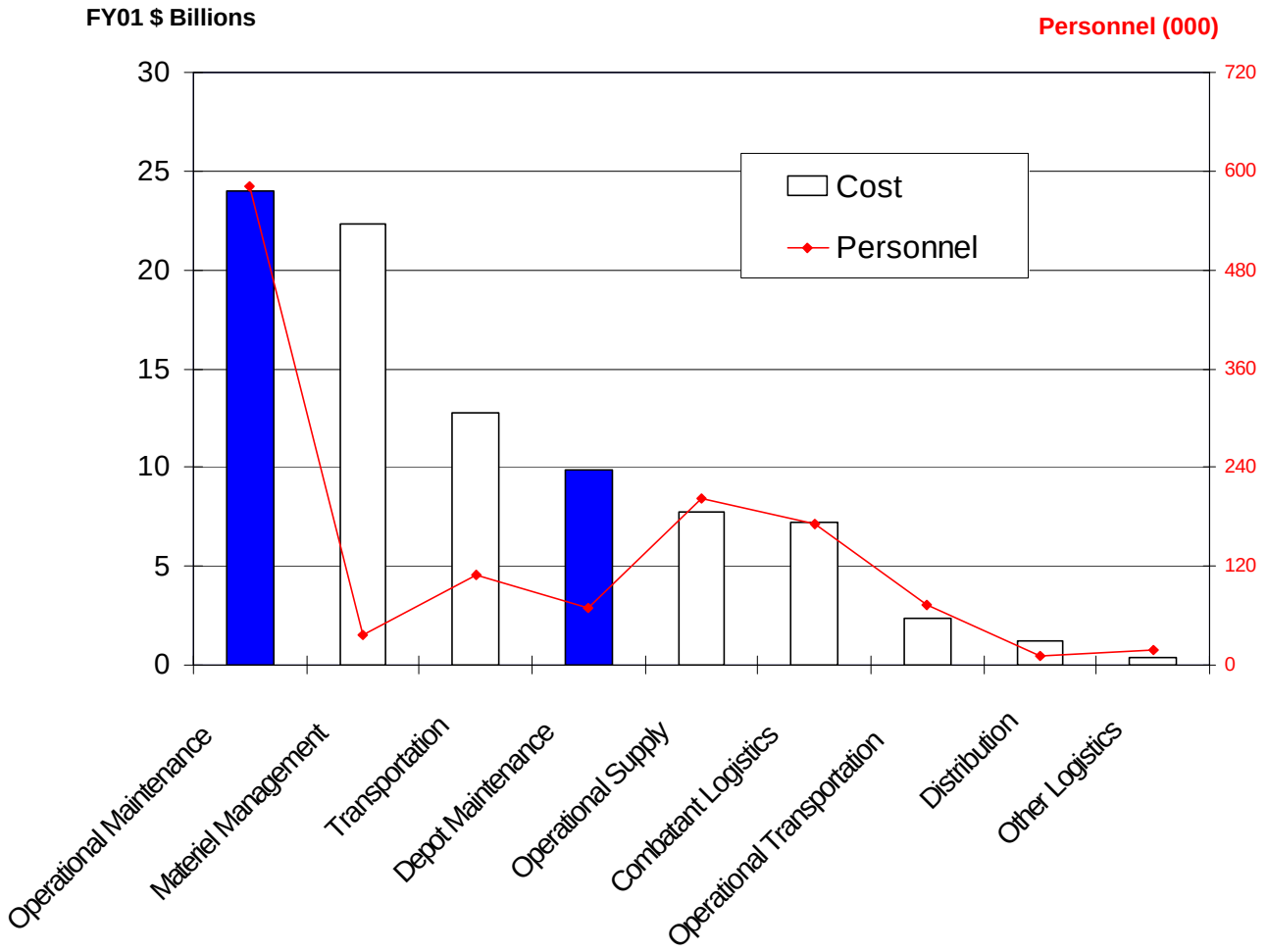
This initiative's goal is to improve DoD organic depot performance through increased participation by the private sector via partnering. It includes

- enhancing organic centers of industrial and technical excellence;
- developing guidance to enhance partnering;
- forming partnering agreements that encourage industrial investment;
- assessing and resolving current impediments;
- assessing contractor–government mixed workforce;
- exploiting commercial capabilities to improve performance and reliability of processes and support; and
- developing industry–government training and certification programs.

Logistics Costs and Personnel

Defense Trends

NOTE: Some maintenance activities have costs assigned to categories other than operational and depot maintenance

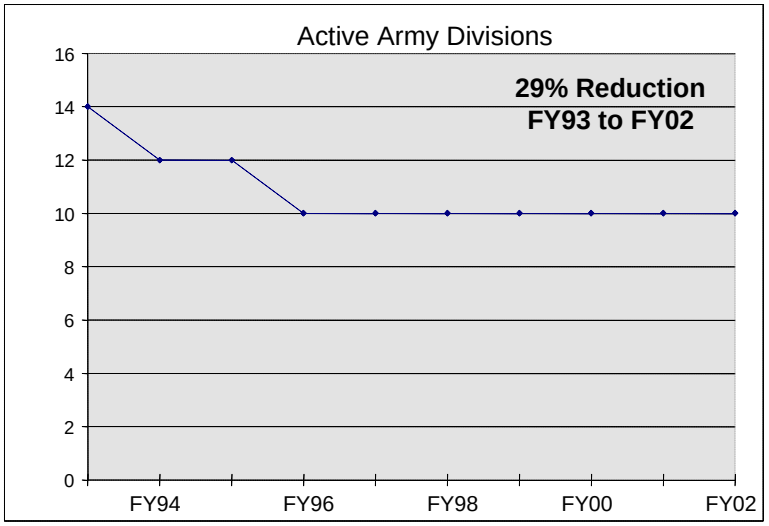


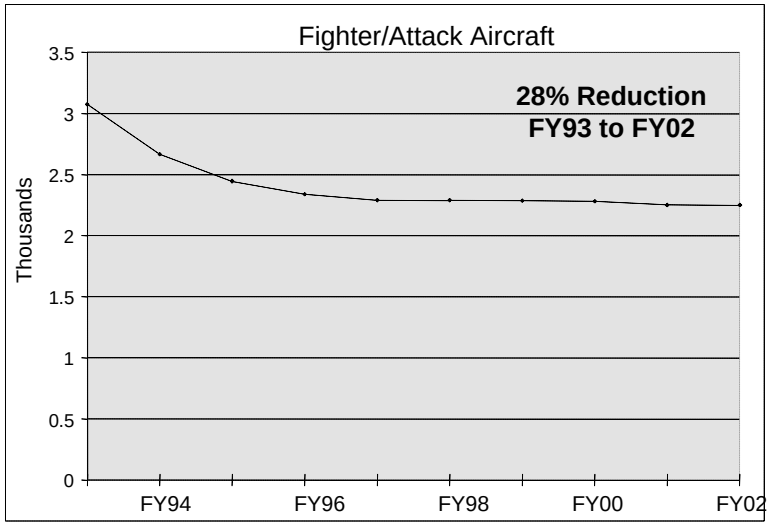
- **Maintenance activities represent about *50 percent* of DoD logistics costs budgeted for FY01.**
- **Personnel assigned to maintenance activities comprise *66 percent* of the DoD *logistics* workforce.**

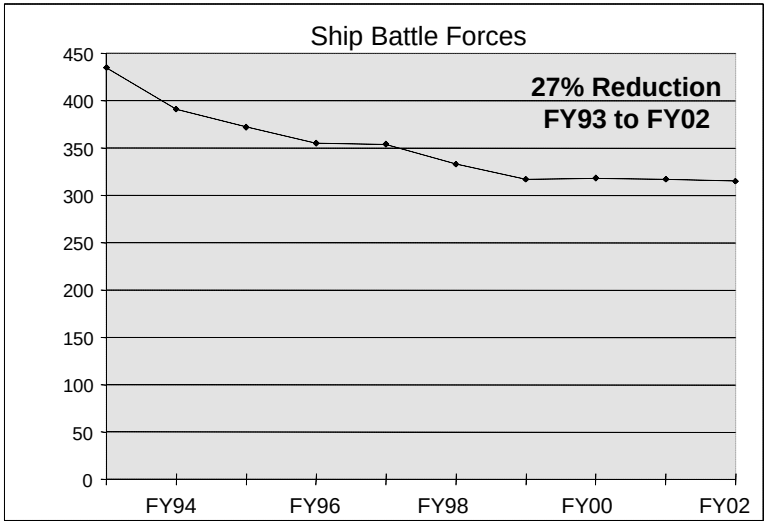
Source: FY01 President's Budget, DUSD(L&MR) Logistics Cost Baseline

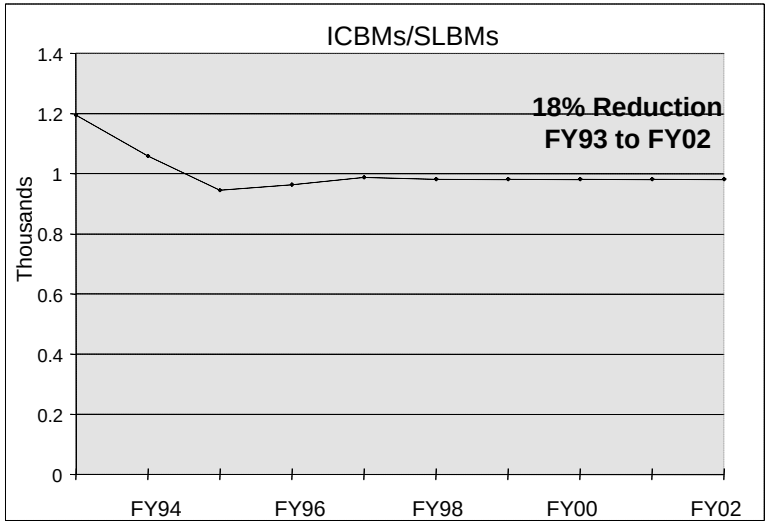
Defense Trends

Force Structure Changes



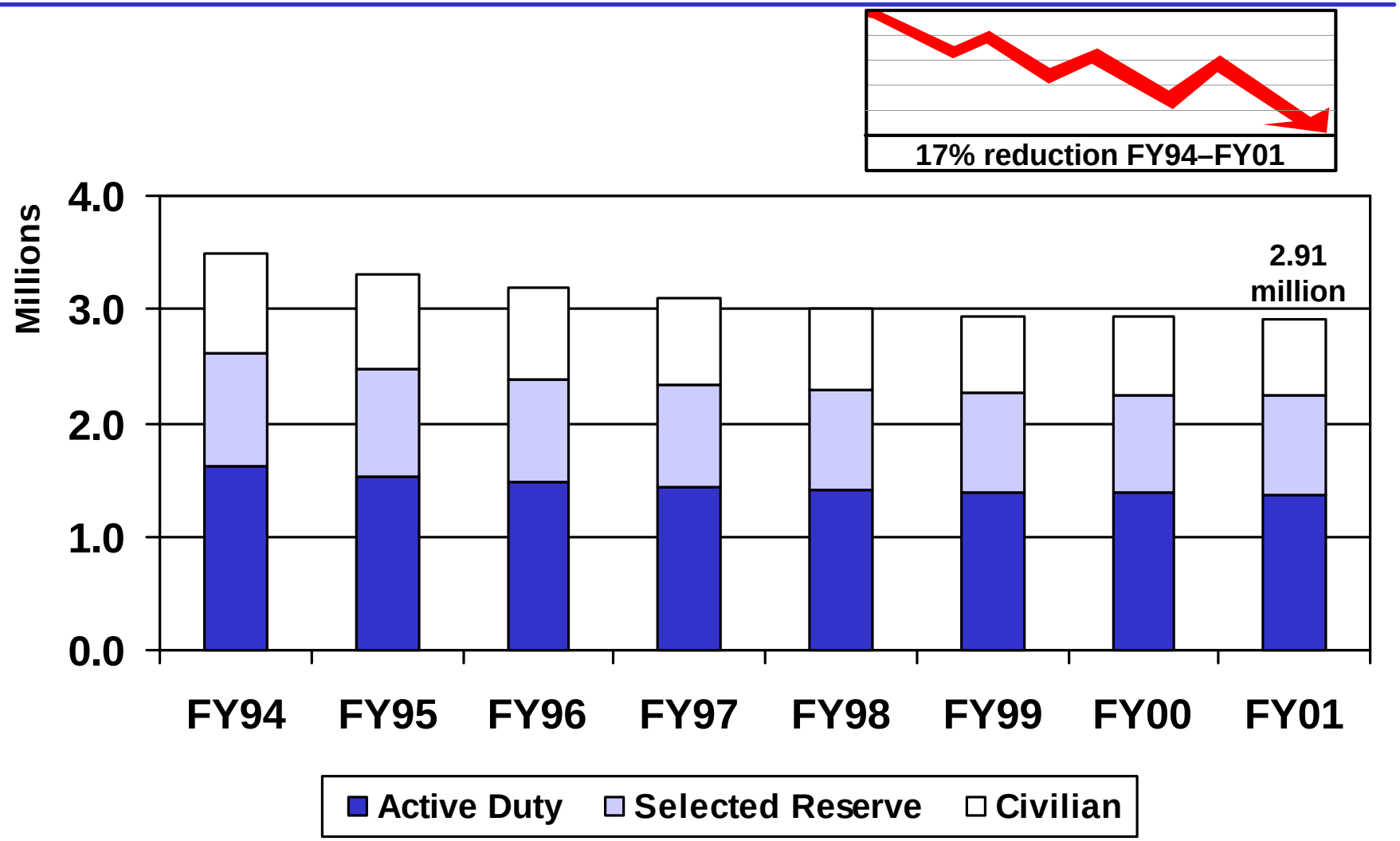






Source: 2002 Annual Defense Report.

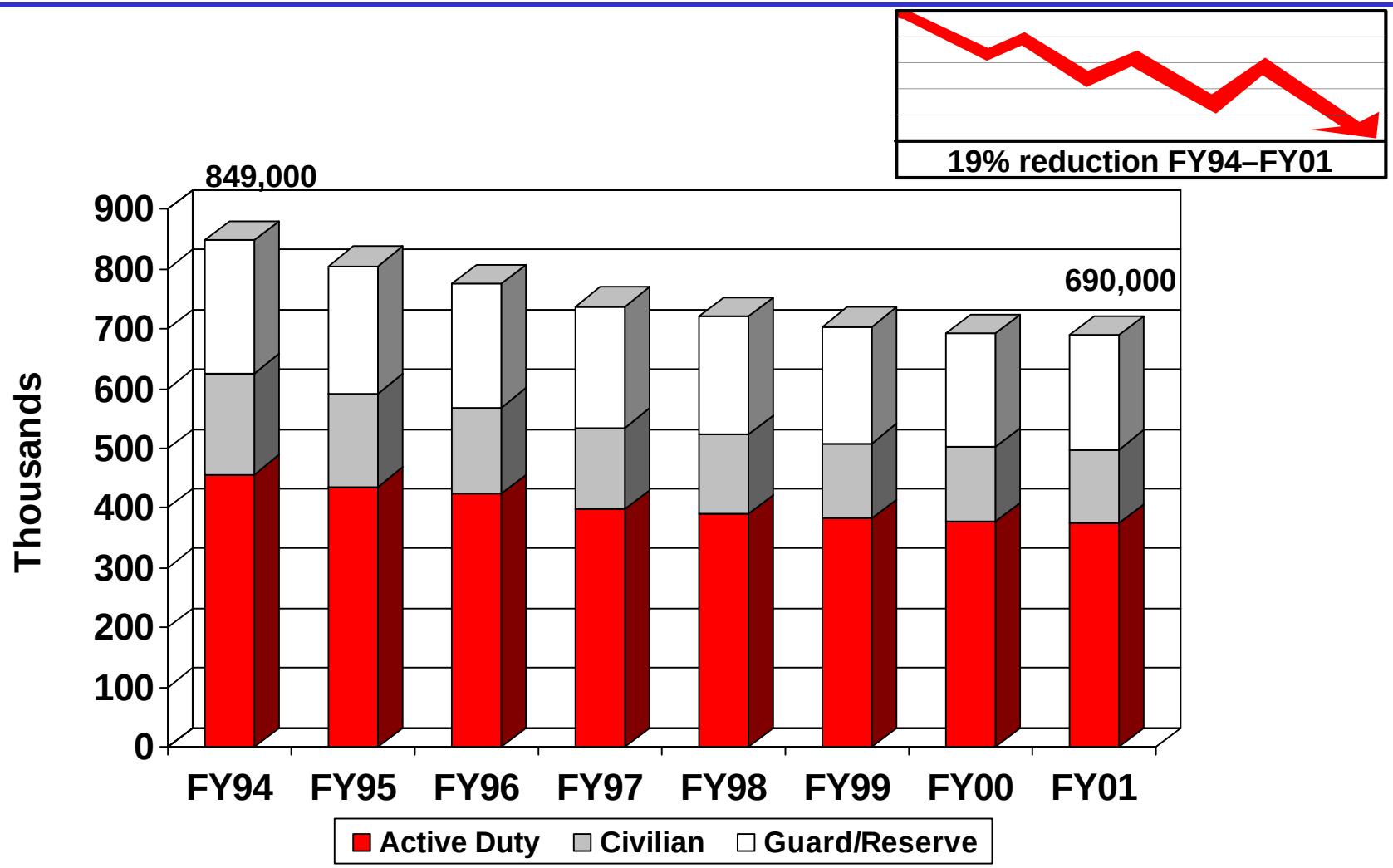
All DoD Personnel



Source: Defense Manpower Data Center.

Personnel

DoD Maintenance Work Force



Source: Defense Manpower Data Center and Logistics Cost Baseline.

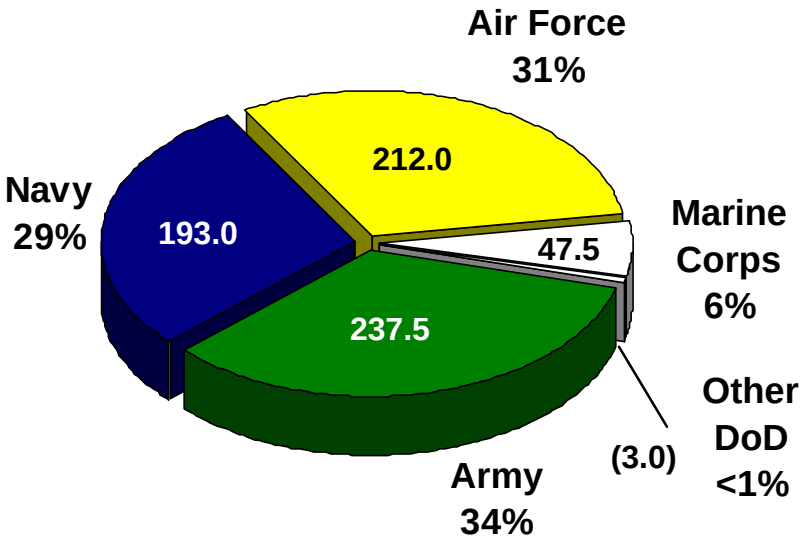
Personnel

DoD Maintenance Work Force

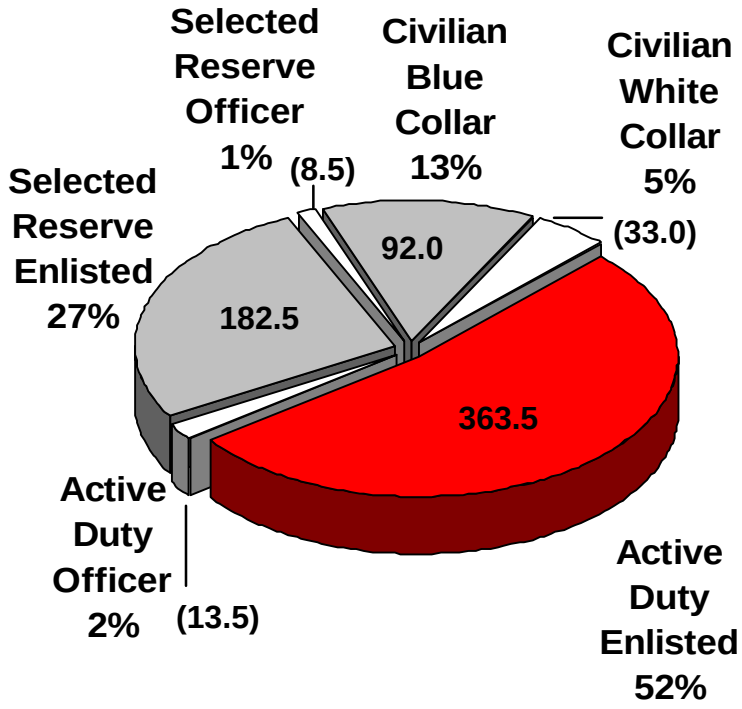
by Service and Segment (FY01)

NOTE: Population in thousands

BY SERVICE



BY SEGMENT

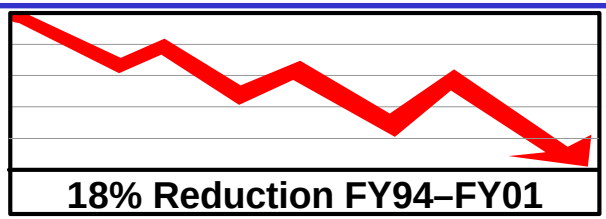


Source: Defense Manpower Data Center and Logistics Cost Baseline.

Personnel

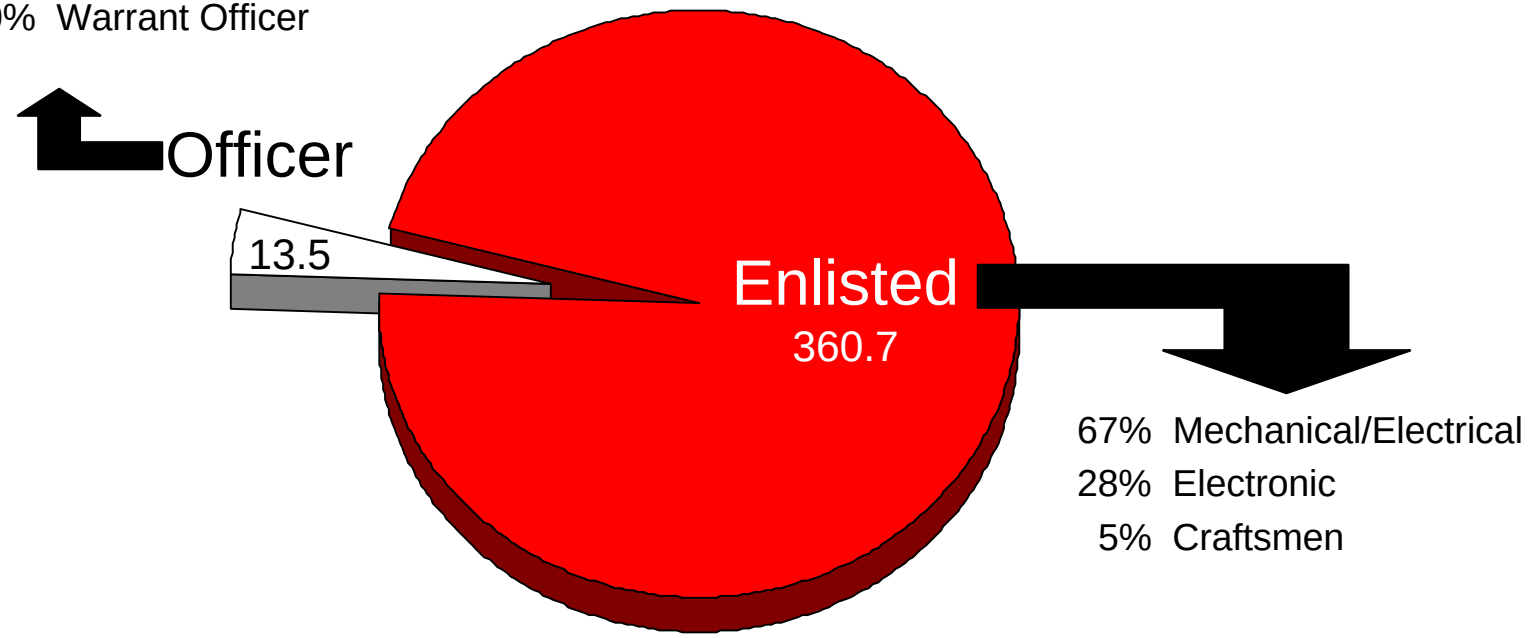
Active Duty Maintenance Work Force (FY01)

NOTE: Population in thousands



70% Commissioned Officer

30% Warrant Officer



67% Mechanical/Electrical

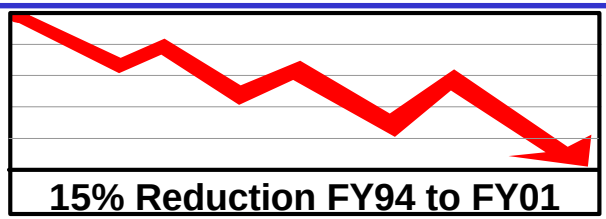
28% Electronic

5% Craftsmen

Source: Defense Manpower Data Center and Logistics Cost Baseline.

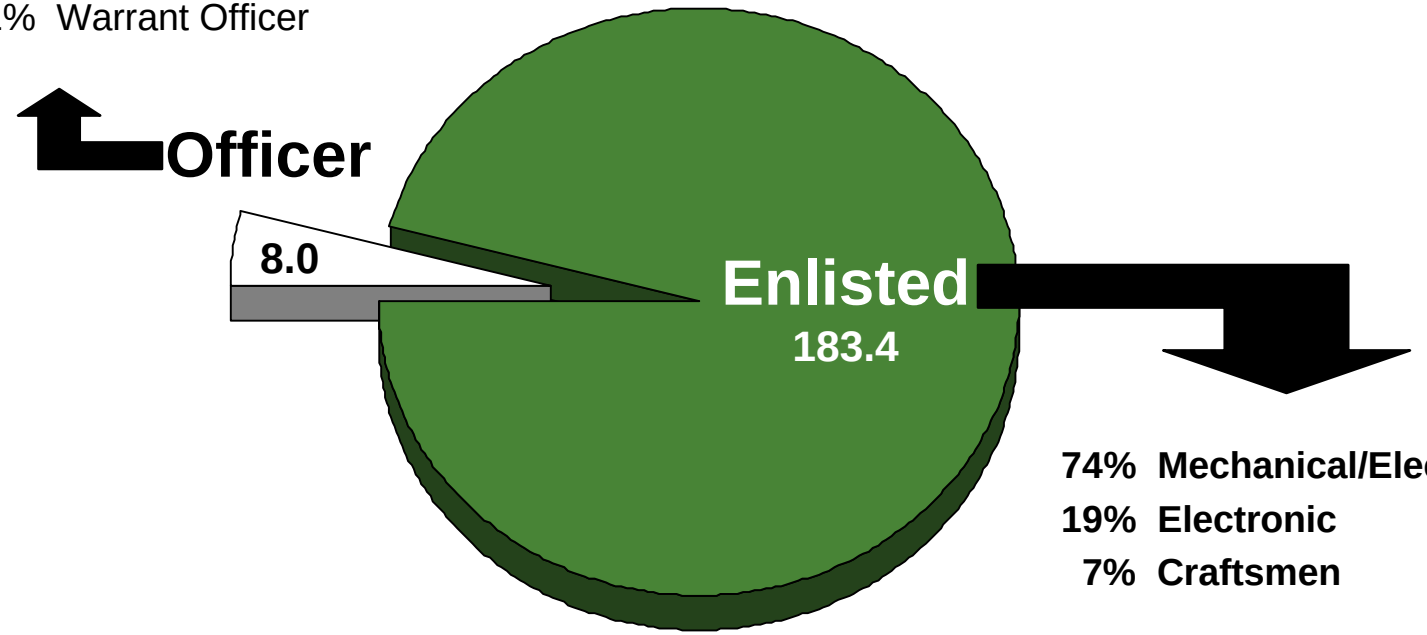
Guard and Reserve Maintenance Work Force (FY01)

NOTE: Population in thousands



69% Commissioned Officer

31% Warrant Officer



74% Mechanical/Electrical

19% Electronic

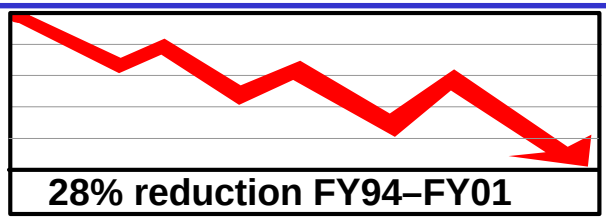
7% Craftsmen

Source: Defense Manpower Data Center and Logistics Cost Baseline.

Personnel

Civilian Maintenance Work Force (FY01)

NOTE: Population in thousands



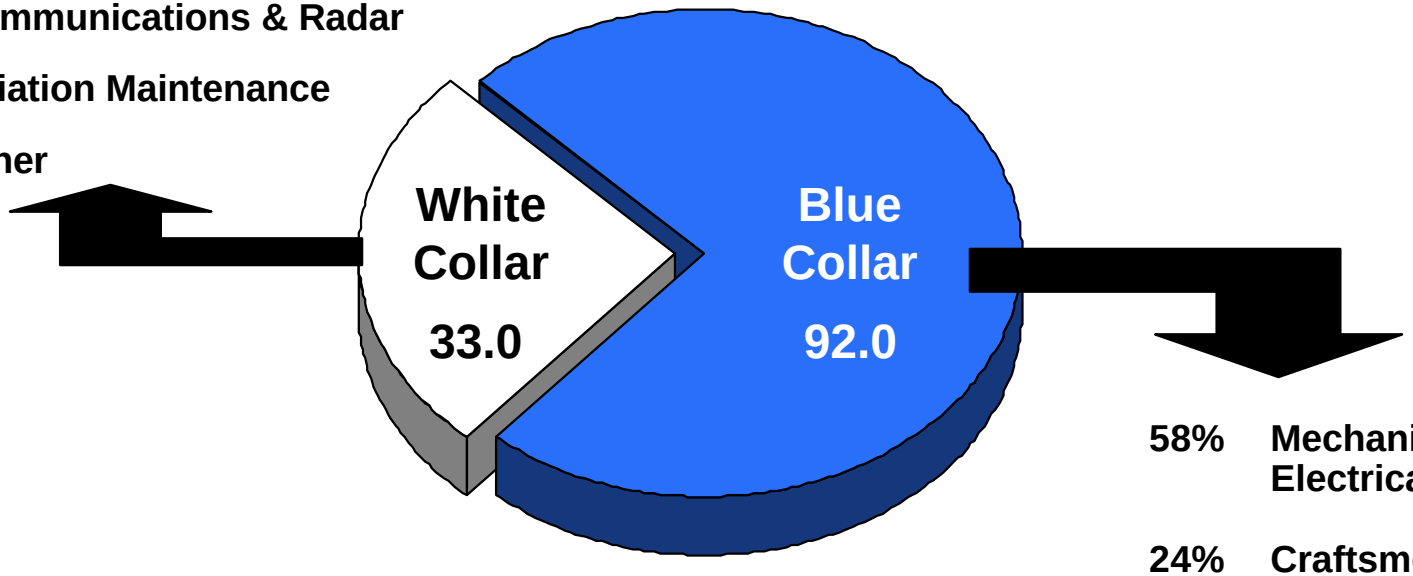
41% Electrical & Electronic

19% Production Management

12% Communications & Radar

10% Aviation Maintenance

18% Other



58% Mechanical/ Electrical

24% Craftsmen

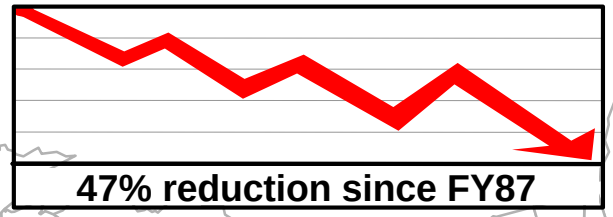
14% Electronic

4% Other

Source: Defense Manpower Data Center and Logistics Cost Baseline.

Major DoD Depot Maintenance Activities

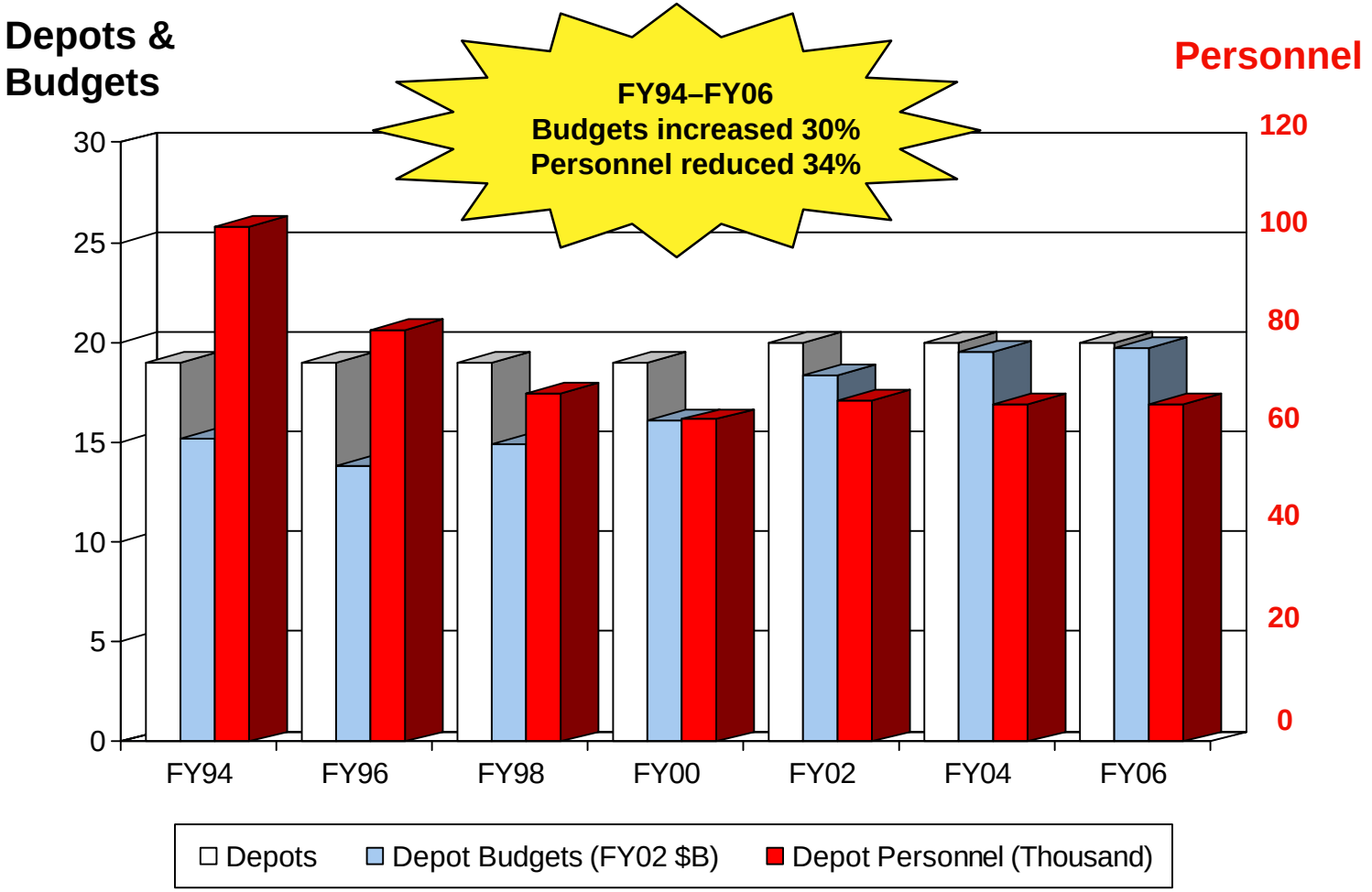
NOTE: Major DoD depot maintenance activities (DMAS) employ 400+ personnel.



Depots — General

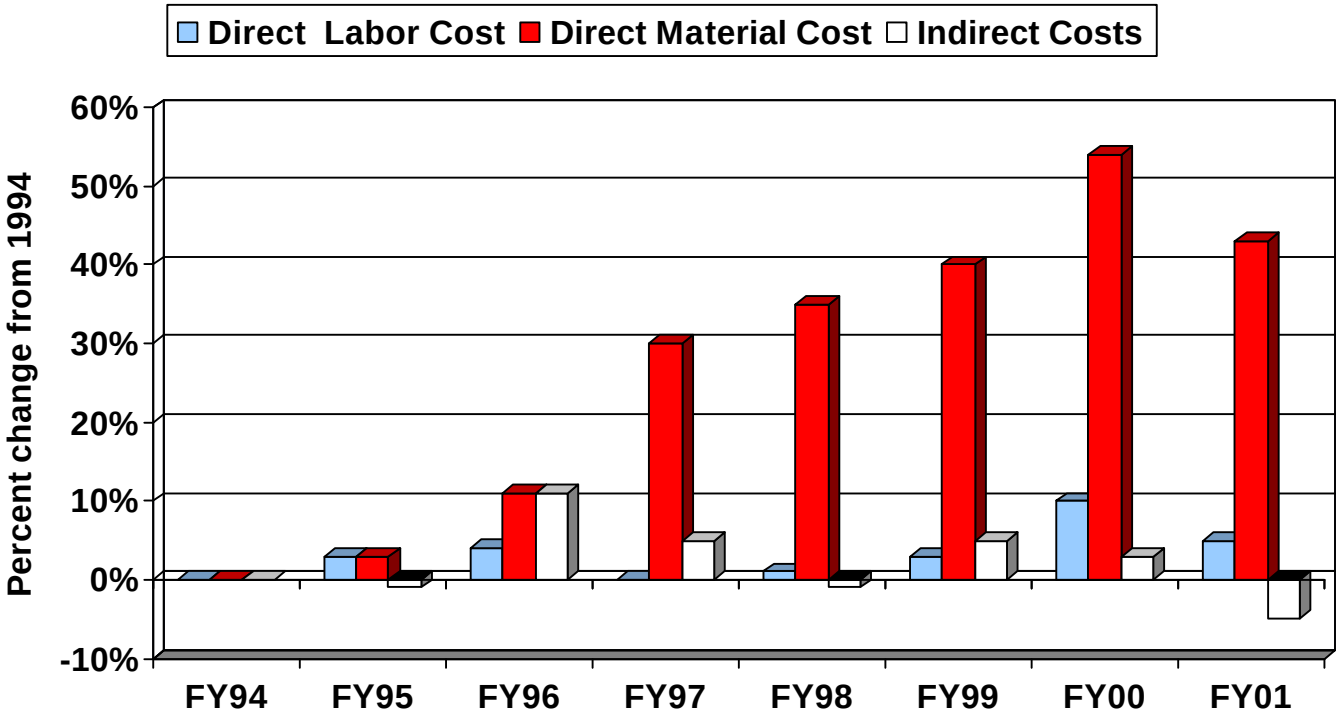
Changes in DoD Depot Maintenance

NOTE: Budget totals include Interim Contractor Support/Contractor Logistics Support from FY99 through FY05.



Source: DDMC Business Profile

Changes in Costs per Depot Labor Hour (Constant $FY01)



Total Change: FY94-FY01

43% Direct Material

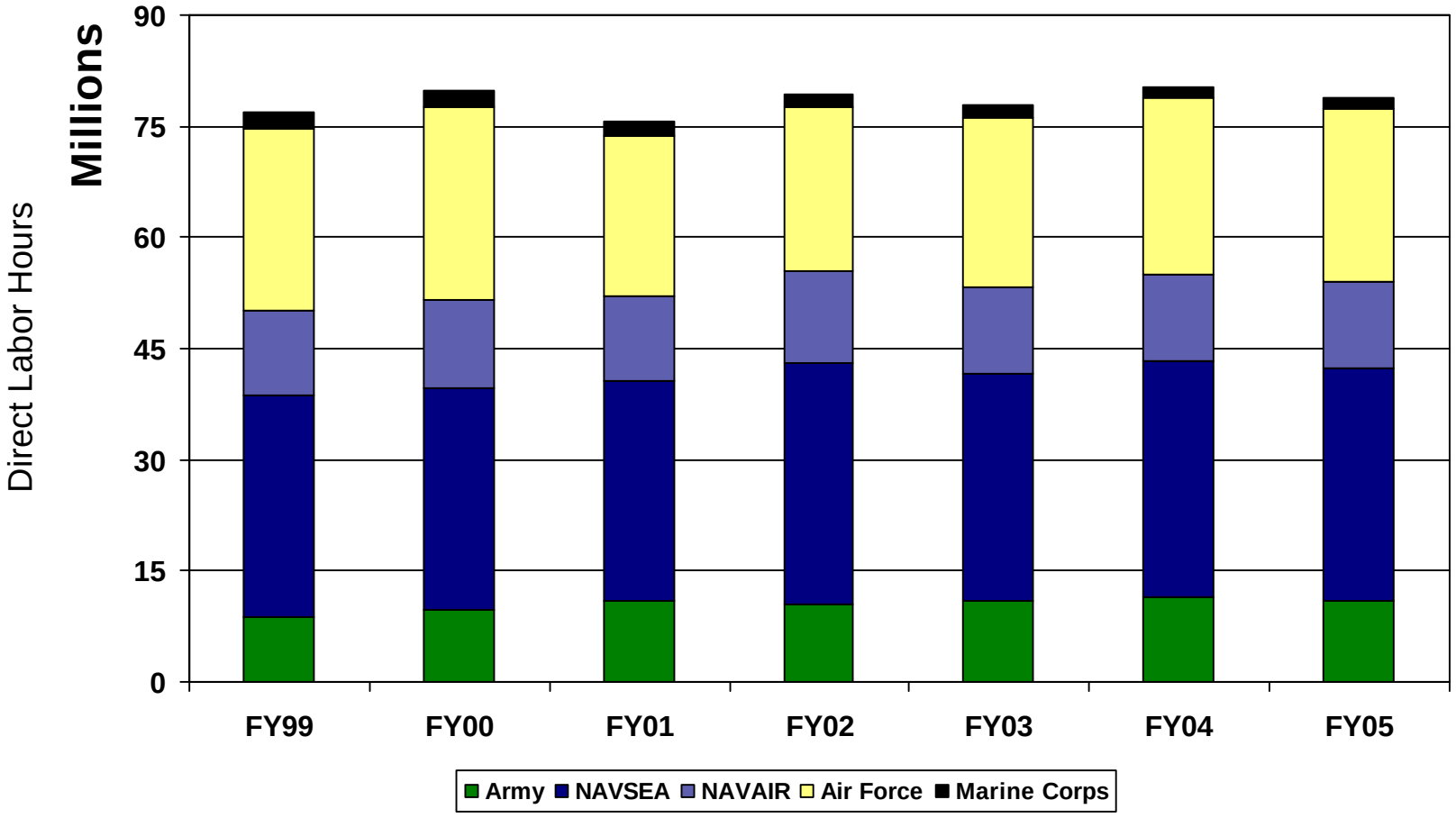
5% Direct Labor

5% Indirect Costs

Source: DoD AP-MP(A) 1397 Report.

Depots — Workload

DoD Depot Maintenance Organic Workload

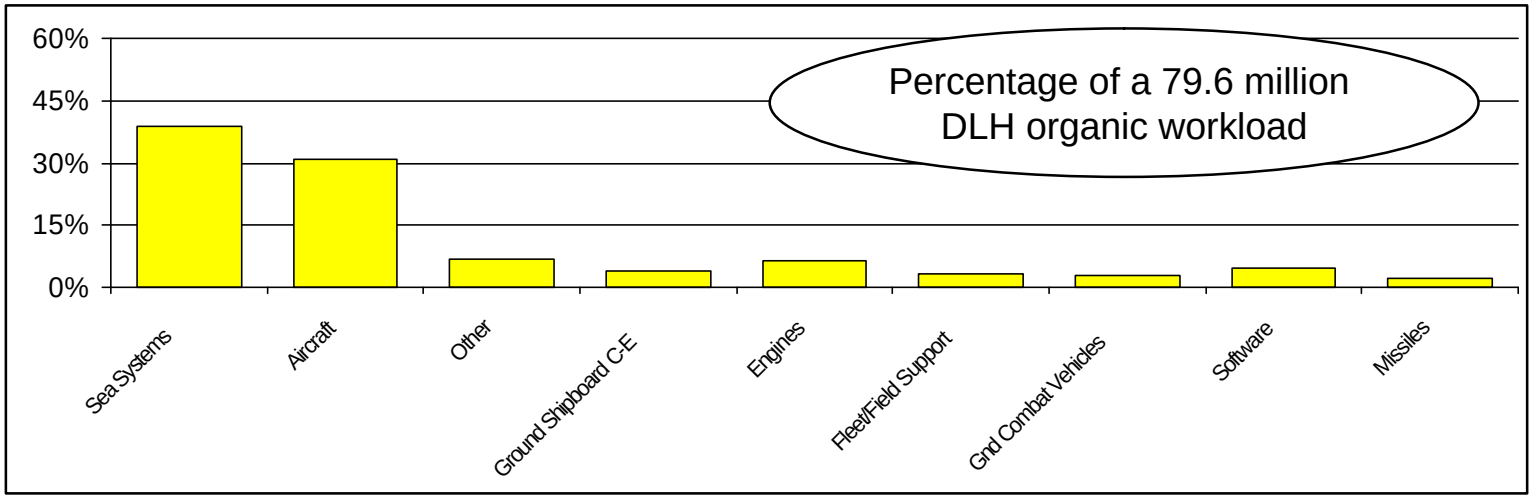


NOTE: Data does not include less than 600,000 DLHs annually for DLA and SPAWAR.

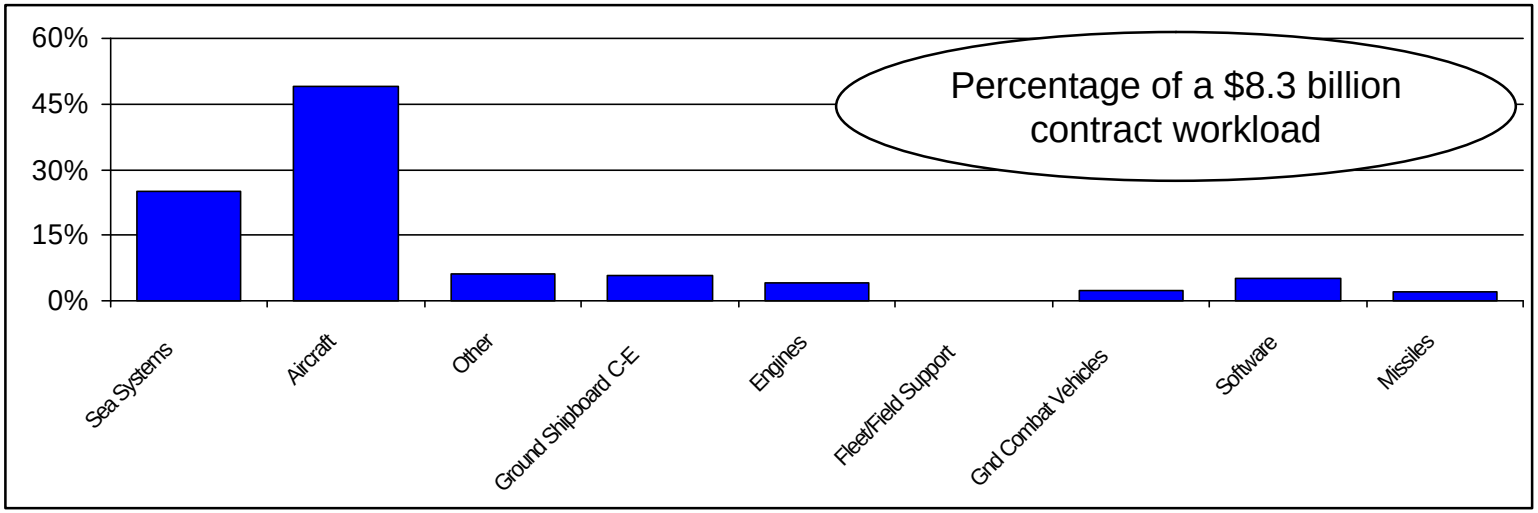
Source: DDMC Business Profile.

Depot Maintenance Workload
Percentages by Major Commodity (FY02)

Organic Workload



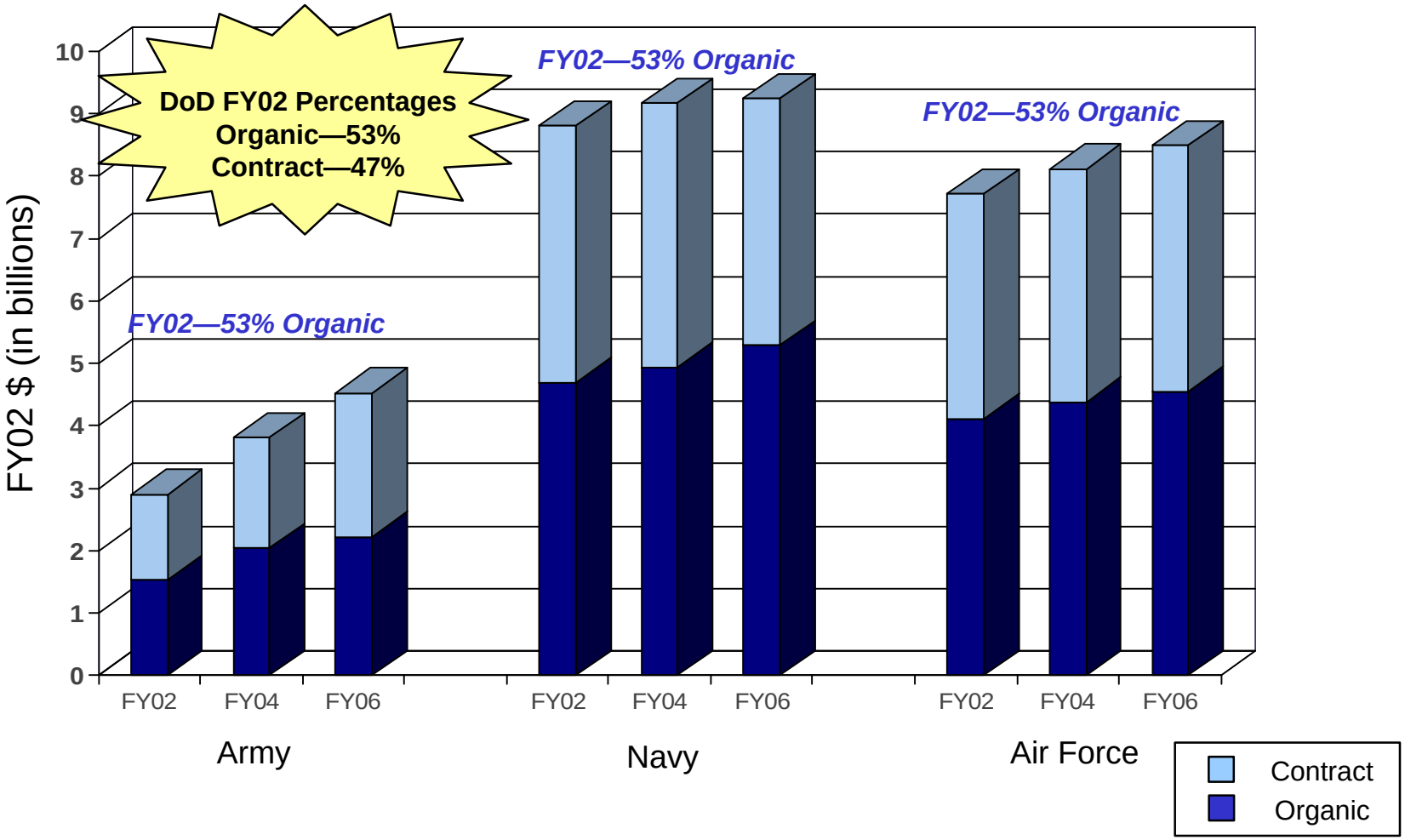
Contract Workload



Source: DDMC Business Profile.

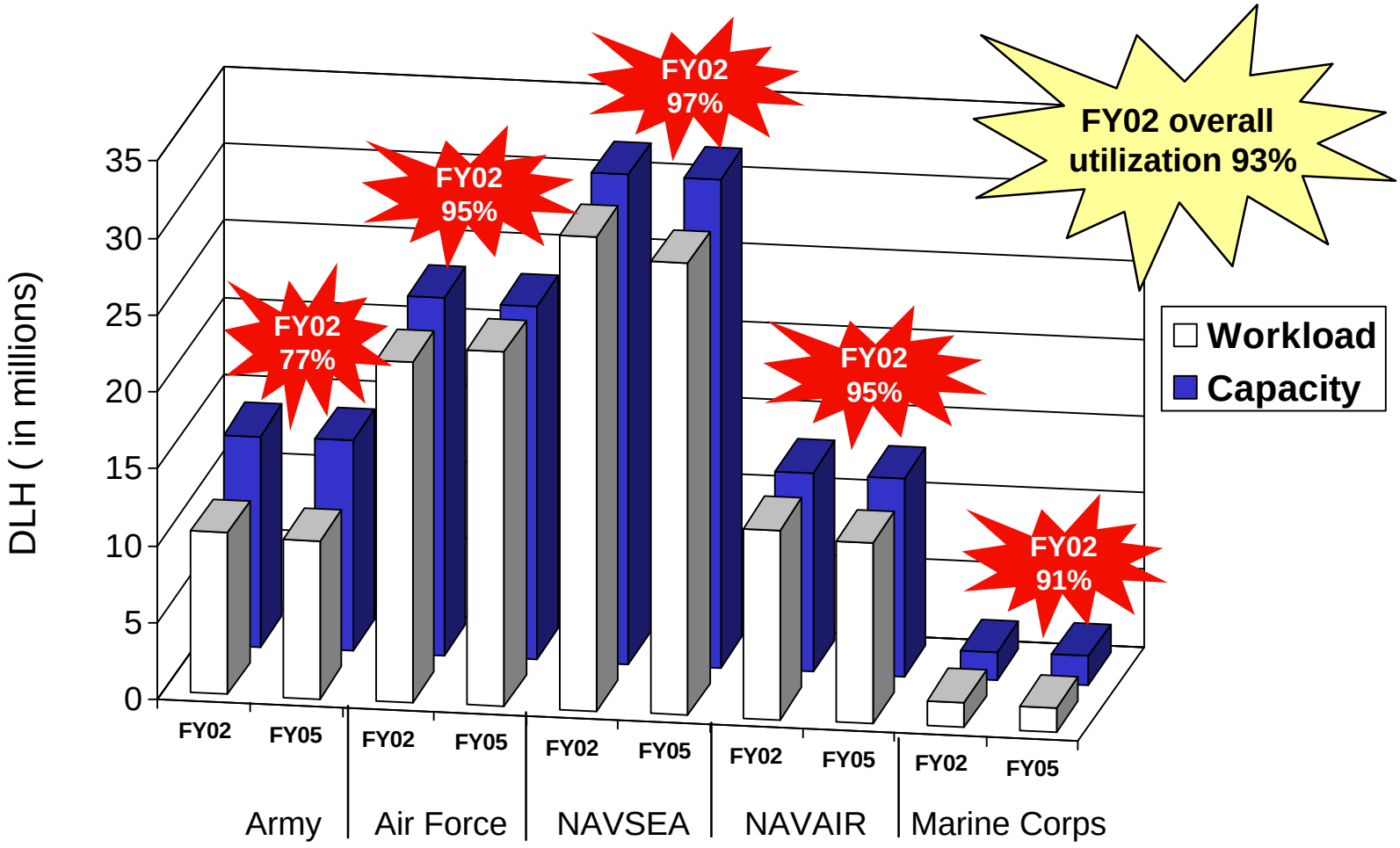
Depot Maintenance Programs

Forecast DoD Expenditures—Public and Private Sectors



Source: DUSD(L&MR): *Distribution of DoD Depot Maintenance Workloads: Fiscal Years 2002 through 2006* (April 2002).

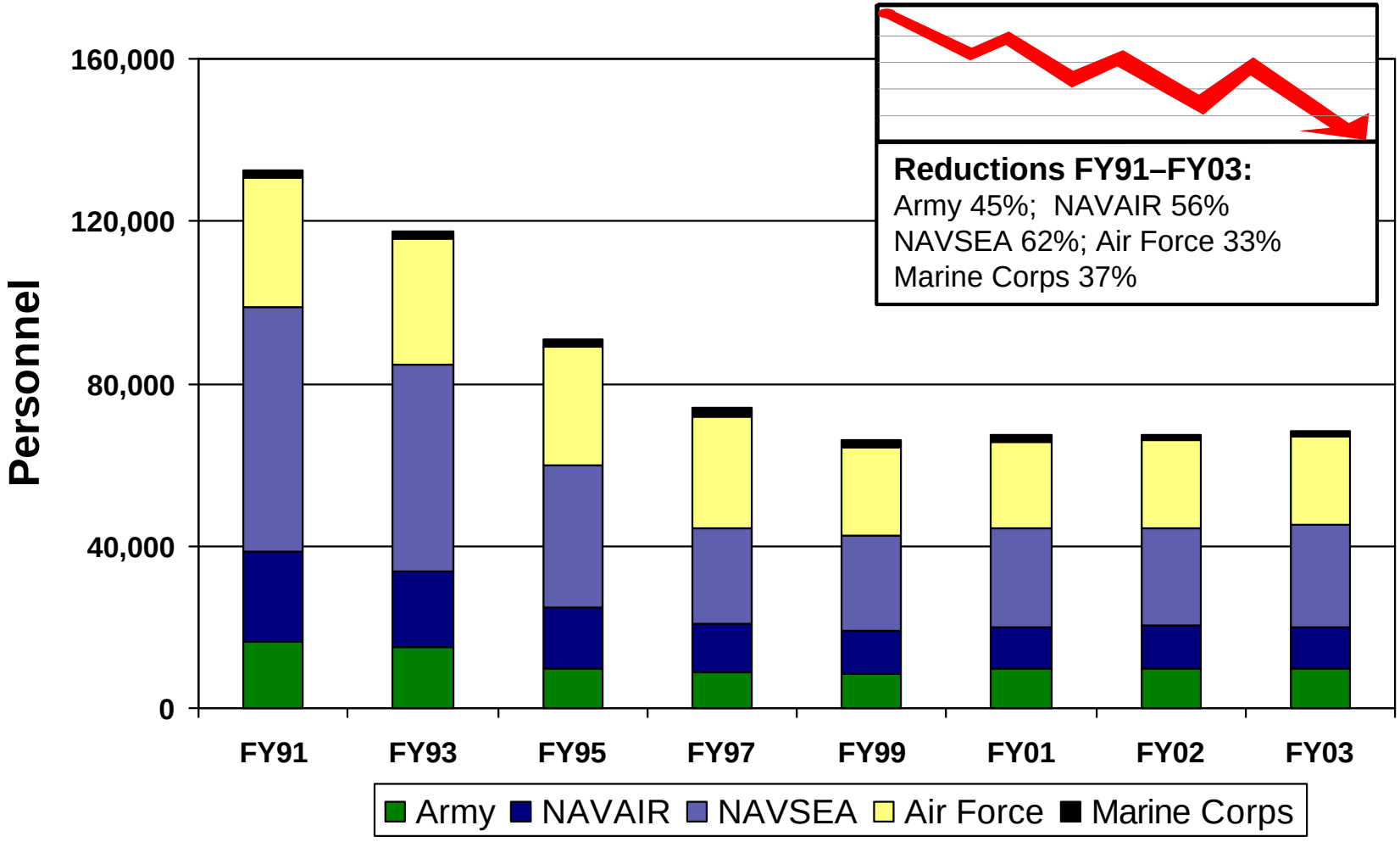
DoD Organic Maintenance Depot Capacity and Utilization



Source: DDMC Business Profile.

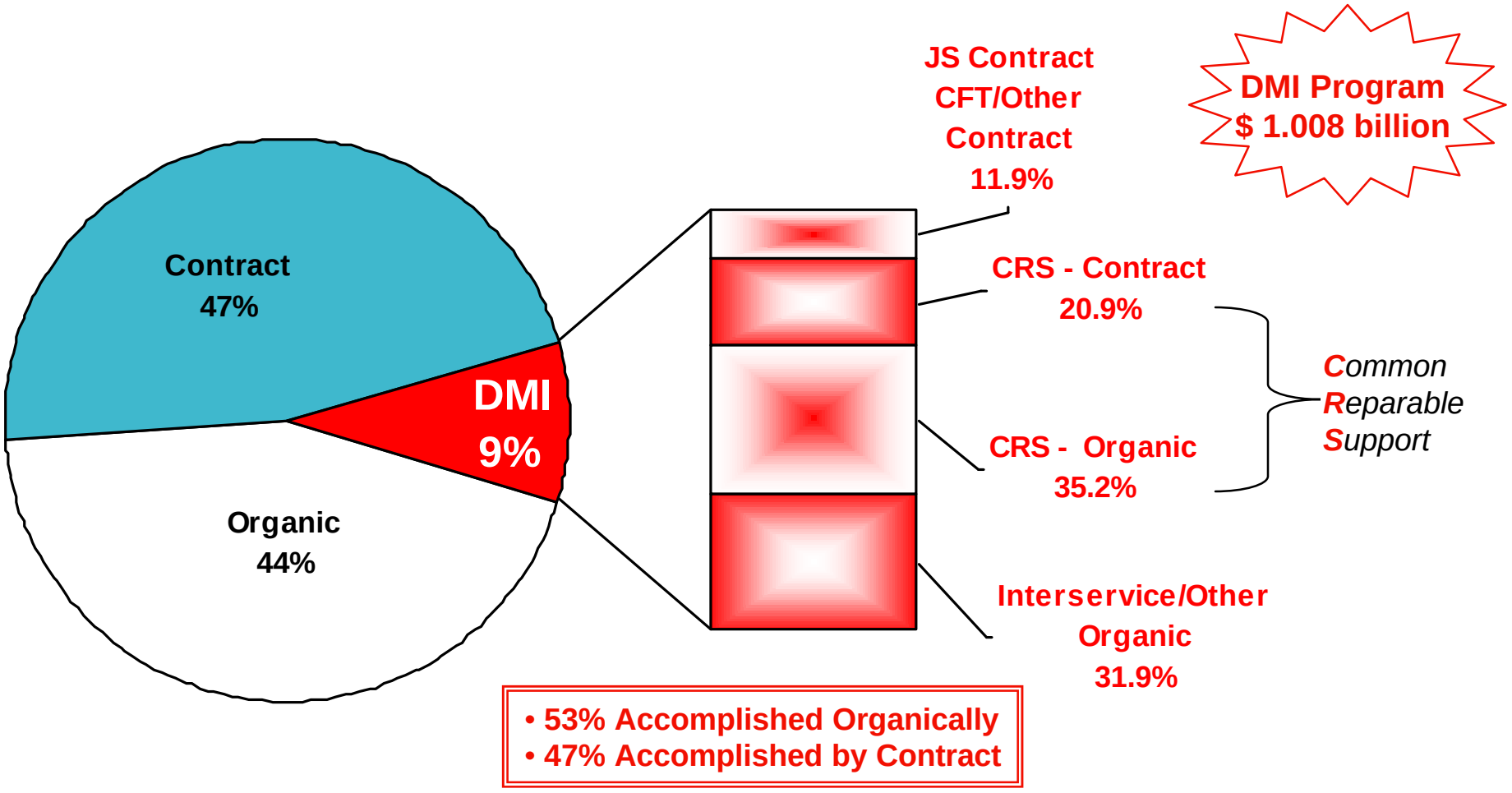
Depots — Personnel

Depot Maintenance Personnel



Source: DDMC Business Profile.

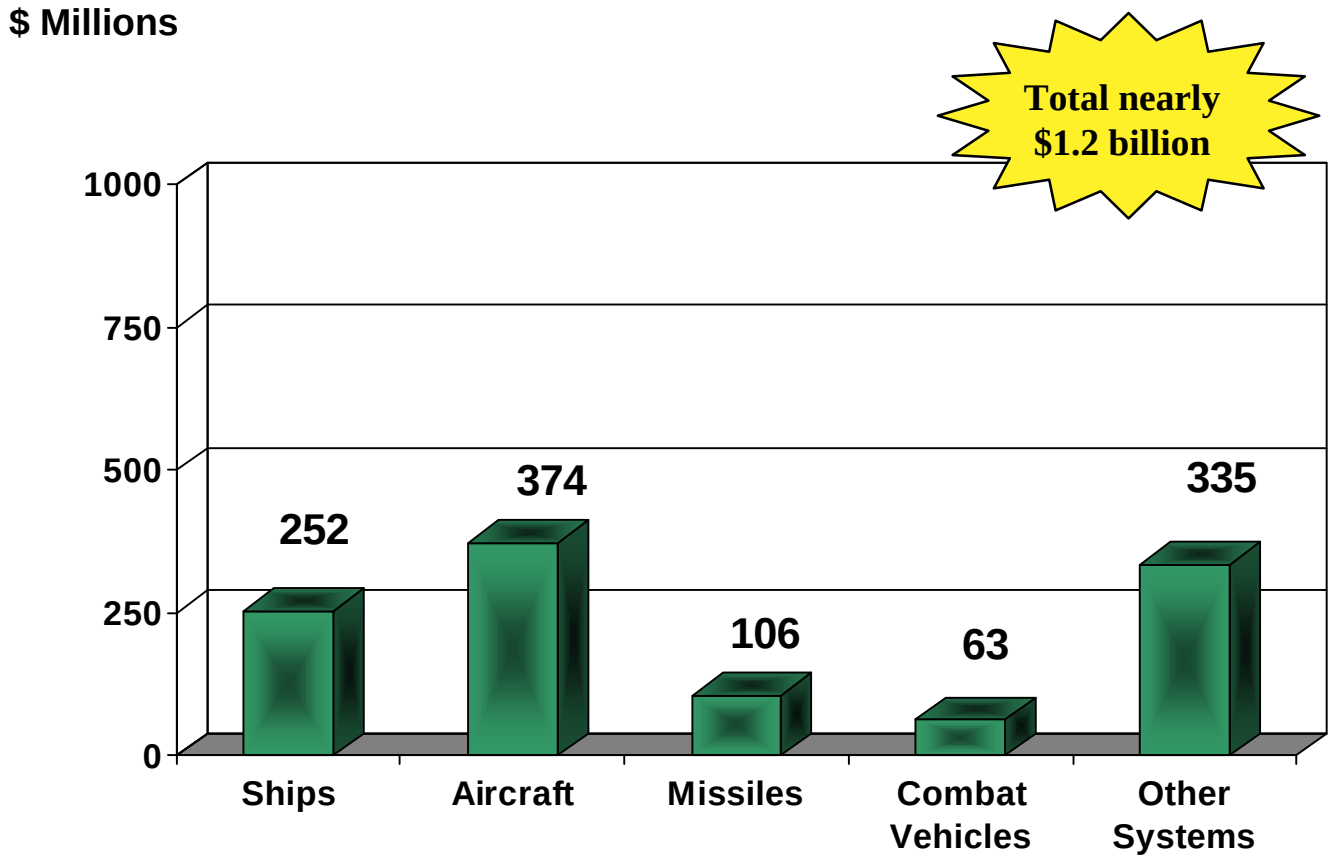
Depot Maintenance
Inter-Service Workloads (FY02)



Source: DDMC Business Profile.

Depots — Deferred

Estimated Deferred Maintenance (FY01)



Source: DoD Agency-wide Audited Financial Statements, February 27, 2002.

Depot Maintenance
Public-Private Partnerships (PPPs)

- FLE initiative
- Rapidly growing in DoD depot maintenance
  - Organic depots (facilities, equipment, and people) serve as anchor
  - Over 110 PPPs planned or in place
- Broad range of forms and authorities (see chart on page 26)
- Beneficial outcomes of PPPs
  - Improved product support and system reliability through commercial partners
  - Established collaborative, mutually supportive environment
  - Sustained robust organic depot capabilities
  - Private-sector capabilities used for functions in which commercial activities excel (e.g., logistics support and technology insertion)

Depots – PPPs

Depot Maintenance PPPs
Partnering Types and Authorities (FY01)

3 Major Partnering Categories

11 Authorities—83 total partnerships

Use of Government Facilities and Equipment (including leasing)

FAR Subparts 45.3 and 45.4
10 USC 2667

Sale of Articles and Services

10 USC 2208(j)
10 USC 2563
10 USC 4543
10 USC 7300
22 USC 2754
22 USC 2770

Workshares and Teaming

10 USC 2469a
10 USC 2474

Source: DUSD (L&MR) Report, July 2001.

2000–2001 Secretary of Defense Phoenix Award Winners

2000

555th Fighter Squadron—Aviano AB, Italy, USAF

- Supported operations Northern Watch, Deliberate Force, and Allied Force
- Generated more than 4,000 successful sorties totaling almost 11,000 flying hours—most of which were combat missions
- Flew 8,000 hours in just 60 days
- Reduced delayed discrepancies by 40 percent

2001

USS Dwight D. Eisenhower (CVN 69)—Norfolk, VA, USN

- Sailed more than 24,000 miles, spending two-thirds of the year away from home port
- Met the challenges of an aging ship with limited supply support in the Mediterranean Sea, Adriatic Sea, and Arabian Gulf
- The Eisenhower's carrier air wing (CV-7) flew 8,000 hours, with a completion rate of 97 percent
- Repaired nearly 23,000 aviation components and provided 100 percent engine availability

Awards

2001–2002 Secretary of Defense Maintenance Award Winners

2001

- 20th Fighter Wing—Shaw AFB, USAF
- 62nd/446th Aircraft Generation Squadron—McChord AFB, USAF
- Marine Aviation Logistics Squadron 36—Okinawa, Japan, USMC
- Fighter Squadron One Zero Three (VF-103)—NAS Oceana, VA, USN
- 58th Signal Company—Mannheim, Germany, US Army

2002

- USS ENTERPRISE (CVN 65); Norfolk, VA, USN
- 9th Engineer Support Battalion Camp Hansen; Okinawa, Japan, USMC
- 18th Maintenance Squadron Kadena Air Base; Okinawa, Japan, USAF
- A Company, 201st Forward Support Battalion; Villeck, Germany, US Army
- 510th Fighter Squadron Aviano Air Base; Italy, USAF

An electronic version of the *Fact Book*, as well as other information relevant to the responsibilities and functions of DoD's Maintenance Policy, Programs and Resources office, is located on the following website:
http://www.acq.osd.mil/log/mppr/